Idaho Currents

New irrigation system keeps park green

Forty-four years ago one of Boise's major parks opened to the public, a gift to the city of Boise from the Harry W. Morrison Foundation.

Today Ann Morrison Park is one of three major urban parks that stretches along the Boise River. Water has played an integral part at the 155-acre park, featuring reflecting pools with water cascading from an illuminated spray fountain as well as ponds that are home to various waterfowl.

The park also includes acres of gardens, a children's playground, a clock tower, tennis courts, lighted softball diamonds, football and soccer fields, and, of course, numerous picnic areas.

For the past 13 years the park has been one of the main areas for the annual Boise River Festival, and thousands of sports enthusiasts have enjoyed practicing or playing soccer, football and softball.

Automated sprinklers

The soccer field sprinklers in Ann Morrison Park were first automated in the mid 1980s, according to Mike Woodward with Boise Parks and Recreation.

"The original design was based on a new 'rotor' head that the manufacturer indicated could be installed at less than head-to-head coverage," says Woodward. "The design incorporated 19 zones, with 16 heads each.

"Unfortunately the head was discontinued by the manufacturer a few years after installation, and finding replacement heads with the same performance specifications was difficult."

In the mid 1990s a failure of one of the park's wells pumped sand into the system that caused almost every head to fail. Park irrigation staff replaced all the heads on the fields; however, the new heads failed to provide even coverage. The stretched spacing of the original design meant over watering to keep the fields green during the hottest, driest times of the season. As a result, the poor coverage was visible in the form of rings of stressed turf.

Last November the city started a four-month renovation of the soccer field's irrigation system. Park staff redesigned the system to incorporate 57 zones with four heads per zone. This design allowed for more localized water applications depending on the needs of the given area.

Two local soccer teams compete in a game last fall at Ann Morrison Park prior to the installation of the new irrigation field. ***(Boise Parks and Recreation photo)***

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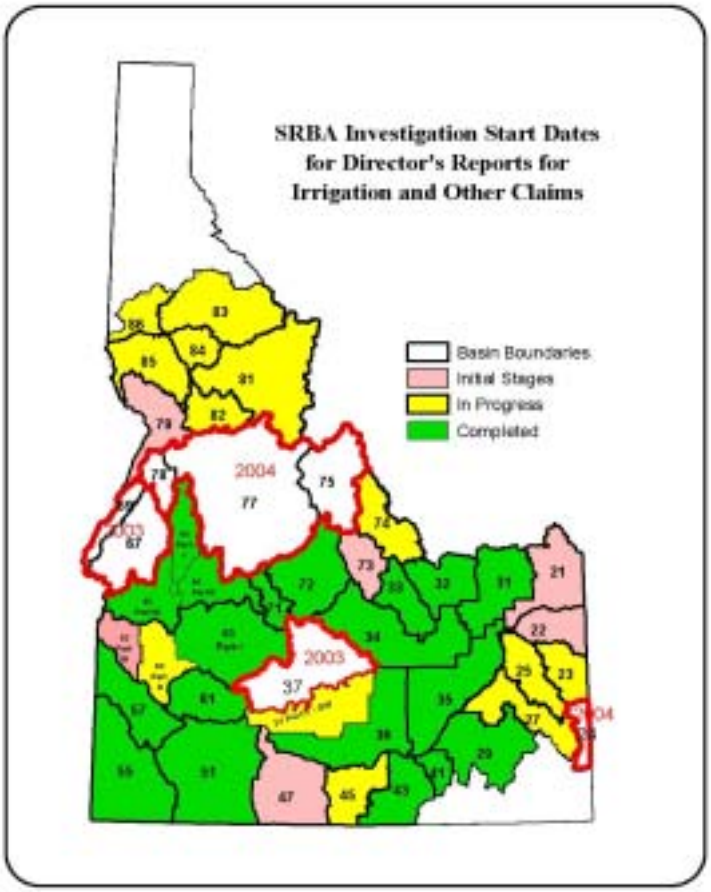
High tech systems aid SRBA process

It has been over 15 years since the Snake River Basin Adjudication started and the light is now beginning to shine at the end of the tunnel.

The Snake River Basin Adjudication is the largest adjudication in Idaho and it is one of the largest lawsuits to determine water rights in the United States. The SRBA covers 87 percent of the land area in the State of Idaho. The Adjudication Bureau handles the state-based water right claims, and the Attorney General's office handles the federal-based claims. Approximately 170,000 claims have been filed with the Department. The adjudication has progressed at a steady pace due in large part to the support of the three branches of state government.

As of June 11, 2003, 119,293 recommendations, compiled in Director's Reports,[1] have been filed with the SRBA court, and of that total approximately 103,163 partial decrees have been issued. The adjudication process has been completed for smaller claims throughout the SRBA, and has been completed for large claims in 17 out of 43 basins. The Department plans to file all remaining Director's Reports with the court by the end of 2005.[2]



The success of this large-scale adjudication is the result of each branch of government doing its part to facilitate the forward movement of the SRBA. The legislative branch has provided functional statutes and consistent funding. The judiciary has provided timely decisions and solid guidance. The executive branch has continued to streamline the adjudication process and integrate technology.

Legislative evidence of this success can be seen by the fact that few of the statutes governing the adjudication have required amendment since 1994. Also, even as the State has faced budget shortfalls, the legislature has continued to provide the SRBA with necessary funding to maintain the momentum of the process.

One unique aspect of this lawsuit is the structure of the court. There is one District Judge overseeing the entire SRBA and three subordinate judges called Special Masters who preside over individual basins. The SRBA courthouse is located in Twin Falls, however, the court travels through the state holding hearings where the claimants reside. Just as the Adjudication Staff travels to the basin to investigate the water claims, the court also tries to make the hearing process more accessible to the individual water user. Success can be seen in the efficiency of the court system where the Special Masters, District Judge and the Supreme Court have rendered decisions that keep the case moving forward.

The adjudication's success can also be measured by the continuing advancement and use of technology. New technology has assisted the Adjudication Bureau in developing more accurate recommendations and is a tool used to facilitate early settlements with the water users. The technology used by the bureau ranges from the state-of-the art satellite and digital imagery used in the creation of maps to an electronic document storage and retrieval system. The decrease in objections to recommendations filed is a sign that the tools of technology and early settlements are good for the health of the SRBA. Last year objections to irrigation and other water rights totaled 6 percent. This year the figure has dropped to a new low of 2 percent, indicating that the objection resolution process is functional.

Other western states have not enjoyed the support of all branches of government working in concert to reach a specific end, especially on a project this large. Thus, many of the large western adjudications have stalled or are making minimal progress.

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The Idaho Quality Commitment Award was presented to the Adjudication Bureau in 2002 for implementing good management techniques that promote quality in business principles and procedures. This Idaho award is based on the Malcolm Baldridge National Quality Award.

Even though there is work yet to be finished, the Adjudication Bureau is proud of its accomplishments thus far. The bureau is working toward accomplishing its challenging but realistic goal of issuing the final Director's Report to the SRBA District Court by the end of 2005.

Adjudication Bureau

[1] Water users file claims with IDWR for their water uses. The department investigates these claims and develops a recommendation of the water uses. The recommendations are reported to the SRBA Court as Director's Reports. A Director's Report will be filed for every state-based water right claim in the SRBA. The court then holds hearings on the recommendations and ultimately issues a partial decree for each water right.

[2] The Director's Report for Basin 29 was recently filed, which reduced the number of claims to be reported to 22,578.

The following people from the IDWR Adjudication Bureau contributed to this article: Dave Tuthill, Adjudication Bureau Chief; Portia Jenkins, Legal Extern.

SRBA affects most of Idaho

The Snake River Basin Adjudication is the largest, most extensive water rights adjudication in Idaho history.

The purpose of the general adjudication of water rights in the Snake River Basin is to create a complete and accurate record of all existing rights to the use of water. By definition, a water right adjudication is a fair, comprehensive, technically correct and legally sufficient determination of existing water rights.

The main precursor to the SRBA was a lawsuit that commenced in 1977 between Idaho Power Company and ratepayers. Idaho Power Company was challenged by ratepayers who claimed it was obligated to defend its rights to a flow of up to 8,400 cubic feet per second at Swan Falls Dam on the Snake River south of Boise.

The common belief at that time was that Idaho Power Company had agreed not to enforce these rights as part of obtaining approval to build its three Hells Canyon dams. At the request of Idaho Public Utilities Commission, Idaho Power Company filed suit to defend its water rights at Swan Falls.

In 1982 the Idaho Supreme Court decided in Idaho Power Company v. Idaho that the power company's water rights at Swan Falls had not been subordinated by the approval of the Hells Canyon Dam complex.

This decision meant development interests upstream of Swan Falls would not have water if Idaho Power's hydropower water rights were satisfied.

After several attempts by the Idaho legislature to resolve the conflict, in 1984 the state and Idaho Power, along with other interest groups, worked out a compromise resulting in the Swan Falls Agreement.

The agreement called for the comprehensive determination of all existing water uses in the Snake River Basin. The Idaho Legislature enacted laws providing for an adjudication of all water rights in the basin.

On Nov. 19, 1987, 10 years after the Idaho Power ratepayer lawsuit, the SRBA commenced in state district court. It then became the responsibility of the Idaho Department of Water Resources to notify all claimants in the SRBA who might have a water right and then follow through with the adjudication procedure.

Second anemometer installed in Owyhee Mountains

State wind power scientists have installed a second wind measurement system on state land in the Owyhee Mountains as part of the developing Silver City Range wind power project. The 98-foot anemometer tower was installed June 24 on a site at an altitude of 7,883 feet near War Eagle Mountain, about three miles from Silver City.

Two special wind measurement units, located on the tower at 33 feet and 98 feet above the ground, will record wind speeds on special data chips that will be replaced every few months.

Scientists at the Idaho National Engineering Environmental Laboratory will then download the data from the chips and convert the readings to wind power profiles for the site. INEEL donated the anemometer system to the Energy Division.

Wind power development areas

The Silver City Range project is part of an Energy Division program designed to scientifically identify potential wind power development areas on state owned land. The data being gathered would then form the framework of any potential move by the state to market the sites to commercial wind developers. The Idaho Department of Lands is a partner in the project.

Engineers from Energy Division installed the first Silver City Range wind measurement site last fall. It is a 66-foot tower located at an elevation of 7,190 feet roughly 10 miles away in the Tennessee Mountain area, about 6 miles from Silver City.

Preliminary data from that Silver City Range site shows average winds in the area are about 13-14 miles per hour with gusts up to 78 mph. However, wind specialists believe average wind speeds will go up considerably during the spring through fall seasons.

Another state lands wind measurement site is located in the Windy Pass region of the Portneuf Mountains south of Lava Hot Springs. Preliminary data from that site shows average wind speeds of just over 14 miles per hour.

State land project

The state lands wind power project is just one component of a broader wind power prospecting and development program being managed by the Energy Division. This program also includes nearly a dozen anemometers on loan to citizens around the state who believe they have commercially viable wind resources on their property.

Idaho ranks 13th in the nation in wind power resources, but doesn't have a single large wind power project. However, about a dozen commercial wind power developers from around the world are now actively working in the state evaluating potential wind power sites.

Energy officials estimate there are more than a dozen different sites in the southern half of the state currently being scientifically evaluated by commercial wind power developers.

There has also been one large scale commercial wind project development announced - a 200 Megawatt project in the Cotterel Mountains in Cassia County being developed by Windland Inc., a Boise-based wind power development company.

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"Multiple zones can be run at the same time to maximize the water use from our pumps and keep our water window within desired limits," says Woodward.

Installation of the new system involved extending the mainlines to the perimeter of the fields, adding new valves, running new lateral lines and replacing the irrigation heads. Once the system was in place, crews leveled and seeded the trenches.

Since the individual stations lack flow meters, Ann Morrison Park employees are unable to determine the exact water savings. However, the time required to water the area with the new system has been reduced by about 25 percent, so an equivalent water savings could be anticipated.

"The renovation of the irrigation system on the soccer fields appears to be a success," says Tom Governale, superintendent of park resources for the city of Boise. "The water is more evenly distributed, delivered more efficiently, and the turf is healthier."

The soccer field will require less water in the long term, which will increase the safety for anyone who uses the field.

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